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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/707,727

01/07/2004

Michael T. Campbell

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03/29/2006

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EXAMINER

LUKS, JEREMY AUSTIN

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 03/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/707,727	Applicant(s) CAMPBELL, MICHAEL T.	
	Examiner Jeremy A. Luks	Art Unit 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/9/04, 8/12/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 17, 18, 20-39, 57 and 58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 9-16, 40-42 and 48-55 are rejected under 35 U.S.C. 102(b) as being anticipated by Kerman (4,800,984).

With respect to Claims 1-3, 41, 42 and 48, Kerman teaches an acoustical barrier as a dash mat (Col. 3, Lines 13-19) comprising a sheet of light weight firm-flexible foam (Figure 1, #10) formed into a complex shape (See shape of Figure 1) that is adapted to be mounted to a sound-transmitting substrate and having acoustic properties that meet both requisite sound absorption and sound transmission attenuation standards (Col. 3, Lines 27-32; Col.4, Lines 52-61); and having sufficient stiffness to retain its shape during handling, shipment and installation.

With respect to Claims 9 and 49, Kerman teaches the thickness (Figure 1, #20) of the foam layer (10) varies to exhibit different acoustical properties at different portions of the dash mat (Col. 3, Lines 45-50).

With respect to Claims 10, 11, 50 and 51, Kerman teaches foam having a density in the range of about 2 to 9 lb/cu ft (See Claim 3).

With respect to Claims 12-15 and 52-55, Kerman teaches the foam having a stiffness of between force at a 25% indentation force 30 and 300 pounds- deflection (IFD) pursuant to ASTM D3574-01.

With respect to Claim 16, Kerman teaches a thin impervious barrier (Figure 12, #2) layer overlying the foam layer.

With respect to Claim 40, Kerman teaches A method of attenuating sound through a firewall between a motor compartment and a cabin of a vehicle comprising the steps of; mapping the sound transmission through the firewall between the engine compartment and the cabin as a function of a set of coordinates of a cabin surface of the firewall that faces the cabin', selecting a firm-flexible foam that has both sound transmission and sound absorbing properties and that has structural integrity for handling, shipping and installation ; designing a layer of the selected firm-flexible foam in a shape that generally conforms to the cabin surface of the firewall and that has selected areas that are designed with configurations that have different acoustical properties that correspond to the mapped sound transmission properties as a function of the set of coordinates; and molding the designed layer into a shape to generally conform to the cabin surface (Col 3, Lines 13-26, 33-39, 51-55).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 4-8 and 43-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerman (4,800,984) in view of Campbell (5,886,305).

With respect to Claims 4 and 43, Kerman is relied upon for the reasons and disclosures set forth above. Kerman fails to disclose an acoustical barrier having an obverse surface and a reverse side, and wherein patterned recesses are formed in at least a portion of the reverse side, and wherein the patterned recesses are adapted to attenuate the transmission of sound from a sound-transmitting substrate against which the reverse side of the acoustical barrier is adapted to be placed. However, Campbell discloses an acoustical barrier (Figure 1, #10) having an obverse surface (14) and a reverse side (Figure 2, #16), and wherein patterned recesses (28) are formed in at least a portion of the reverse side (16), and wherein the patterned recesses (28) are adapted

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to attenuate the transmission of sound from a sound-transmitting substrate against which the reverse side (16) of the acoustical barrier (10) is adapted to be placed (Col. 1, Lines 44-49).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the absorber of Kerman with the configuration of Campbell to provide a high degree of impact resistance from interior or exterior forces, provided by Campbell's recess and rib configuration that is not present in the design of Kerman.

With respect to Claims 5, 7 and 44, Campbell discloses the spacing and pattern of the recesses (Figure 2, #28) define a regular array (32), wherein spaced support columns (32, 32) are adapted to contact (34) the sound-transmitting substrate when the acoustical barrier (10) is installed on the sound-transmitting substrate (Col. 4 Lines 7-9).

With respect to Claims 6 and 45, Campbell discloses the spacing and pattern of the recesses (Figure 2, #28) define an irregular array (26).

With respect to Claims 8 and 46, Kerman discloses at least one selected area of the structure with an enlarged wall thickness (Figure 1, #20) to increase the sound absorption through the foam layer (10) (Col. 3, Lines 45-50).

With respect to Claim 47, Kerman discloses an enlarged wall thickness (Figure 1, #20) to at least partially surround an opening (32) in the foam layer (10).

4. Claims 19 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerman (4,800,984) in view of Focht (4,121,960). Kerman is relied upon for the reasons and disclosures set forth above. Kerman fails to disclose foam with porosity in the range of about 20 to 120 cells per inch. Nevertheless, Focht discloses foam (Figure

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3, #48) with porosity in the range of about 20 to 120 cells per inch (Col 2, Lines 62-68; Col. 3, Lines 1-2)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Kerman with the foam of Focht because of its superior and controllable sound absorbing characteristics, as well as its frequent use in the art.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pertinent arts of record relating to molded lightweight foam acoustical barriers and the method of attenuating noise are disclosed in the PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy A. Luks whose telephone number is (571) 272-2707. The examiner can normally be reached on Monday-Thursday 8:30-6:00, and alternating Fridays 8:30-5:00.

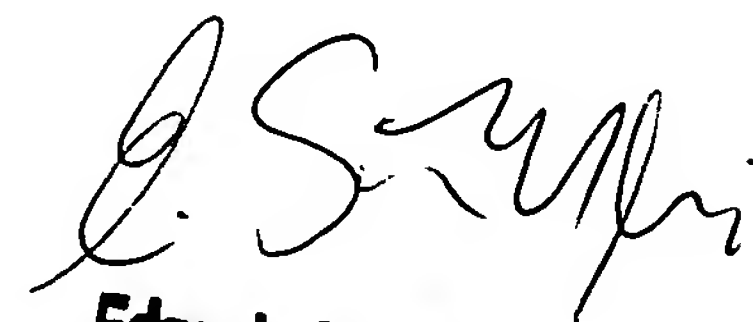
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (571) 272-2800 x33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeremy Luks
Patent Examiner

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Edgardo San Martin
Primary Patent Examiner